REMARKS

Claims 1-20 are pending in the present application. Reconsideration of the claims is respectfully requested.

I. 35 U.S.C. § 103, Obviousness, Claims 1-17 and 19-20

The Examiner has rejected claims 1-17 and 19-20 under 35 U.S.C. § 103 as being obvious in view of *Nakayama et al.* (U.S. Patent No. 6,907,001) and *Erimli et al.* (U.S. Patent 6,842,423). This rejection is respectfully traversed.

A. Burden

The Office bears the burden of establishing a *prima facie* case of obviousness based on the prior art when rejecting claims under 35 U.S.C. § 103. *In re Fritch*, 972 F.2d 1260, 23 U.S.P.Q.2d 1780 (Fed. Cir. 1992). The Examiner has failed to meet that burden for the following reasons.

B. References must teach or suggest all elements of the rejected claims

For an invention to be prima facie obvious, the prior art must teach or suggest all claim limitations. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). "All words in a claim must be considered in judging the patentability of that claim against the prior art." *In re Wilson*, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970).

With regard to independent claims 1, 7, and 12, the references fail to teach or suggest all elements of these claims. Specifically, independent claims 1, 7, and 12 recite a feature of "in response to a determination that the particular one of the plurality of output queues contains a number of queue items that meets or exceeds the pre-determined amount, preventing any queue items that have a same corresponding output port as the particular one of the plurality of output queues and **that have a queue item priority *greater than or equal to* the queue priority of the particular one of the plurality of output queues from exiting the input queue**" (emphasis added), which is neither taught nor suggested by the cited references.

The Examiner argues that this feature is taught by *Nakayama*, since after a particular threshold is reached in *Nakayama*, *all* packets are prevented from being transmitted to an output queue. The Examiner reasons that if *all* packets are prevented from being transmitted, then that would mean that packets greater than a particular priority would be suppressed in addition to packets of a lesser priority.

The problem with this argument is that it focuses on possible *results* of *Nakamura* and Applicants' invention, while ignoring *what the two inventions do* to obtain those results. Applicants' independent claims recite specific criteria utilized by the claimed invention to select which packets should not exit the input queue, namely that the packets have a priority **greater than or equal to** the queue priority of their destination output queue. In contrast, *Nakayama*, even where it teaches suppressing *all* packets (regardless of priority), applies the opposite criterion, that the priority is **less than** a particular amount. For example, *Nakayama,* if implemented in software, would use an "if" statement like the following to determine which packets to suppress:

if(packet_priority < x){ prevent packet from exiting }

In the above "if statement" the value of "x" determines whether some or all packets will be prevented from exiting the input queue. If the value "x" is greater than the highest priority allowed in the system, then all packets will be prevented from exiting, but if "x" is less than or equal to the highest priority allowed in the system, then only *lower priority* packets will be prevented from exiting the system.

A software implementation of the presently claimed invention, on the other hand, would use a very different sort of "if" statement to make this determination, such as this one:

if(packet_priority >= queue_priority) { prevent packet from exiting }

In this case, packets are prevented from exiting the input queue if they have a priority that is greater than or equal to the priority of the output queue. This is a different selection criterion than in *Nakayama*. Whether implemented in hardware or software, the implementation of this claim limitation will differ from that employed in *Nakayama*.

Testing for whether something is *greater than or equal to* a particular value (as recited in Applicants' independent claims) is, fundamentally, a different operation than testing for whether something is *less than* a particular value (as taught by *Nakayama*). While in certain special cases, it may be possible to obtain the same result from both operations (for example, testing to see if a number is greater than or equal to the lowest possible number will give the same result as testing to see if a number is less than or equal to the highest possible number), the operations performed will still be different.

As another example, consider a hypothetical scenario in which a reference teaches "generating a list of odd numbers greater than two and less than a given number" and the claims under examination recite "generating a list of *prime* numbers greater than two and less than a given number." In that case, it is clear that the operations being performed are different—testing a number to see if it is prime is *not* the same as testing the number to see if it is odd. This is true despite the fact that under certain special conditions, these two patentably distinguishable operations will yield the same result (*e.g.,* the odd numbers greater than 2 and less than 8 are all prime).

Applicants' claims, like all apparatus and method claims, define the invention in terms of *how the invention is made or practiced*—that is, the *structure* and *operation* of the invention. If Applicants claim something that applies a "greater than or equal to" relation and the prior art teaches only something that applies a "less than" relation without teaching or suggesting the use of a "greater than or equal to" test or criterion, then the structure and operation of Applicants' invention and the prior art differ, even if it is possible to define a hypothetical situation in which the two inventions will yield identical results.

Moreover, the presently claimed invention also differs from the cited prior art in terms of what values are compared to determine which packets should not exit the input queue. Applicants' independent claims recite that these packets are those "that have a queue item priority **greater than or equal to the queue priority of the particular one of the plurality of output queues**." In the case of *Nakayama*, the Examiner has correctly noted that *Nakayama* does not teach output queues having a particular queue priority. The Examiner relies on *Erimli* as teaching queues having an associated queue

priority. However, *Erimli* does not teach or suggest the limitation of preventing packets **having a priority greater than or equal to the output queue's priority** from exiting an input queue. The Examiner points to reference characters 312, 314, 316, and 318 in Figure 3 of *Erimli* as being output queues having associated queue priorities. However, in the event that one of the these queues becomes congested, *Erimli* teaches that all packets destined for any of queues 312, 314, 316, and 318 (which are all associated with a single output port) will be subject to flow control, regardless of what those packets' priority levels are. The circuit in Figure 4 of *Erimli*, for instance, performs a logical OR (reference symbol 430) of flow control signals from each of priority queues 312, 314, 316, and 318 to generate a flow control signal that applies to all four priority queues on a "per output port" basis. *See cols. 7 and 8* of *Erimli*. Thus, in *Erimli*, flow control is initiated on a "per output port" basis rather than on a particular packet's priority.

Thus, neither reference, whether considered apart or in conjunction with one another, teaches or suggests the claimed feature of preventing any queue items that have a same corresponding output port as the particular one of the plurality of output queues and **that have a queue item priority *greater than or equal to* the queue priority of the particular one of the plurality of output queues from exiting the input queue.**

Thus, independent claims 1, 7, and 12 are not obvious in view of the cited references. Similarly, dependent claims 2-6, 8-11, 13-17, and 19-20 are also non-obvious in view of the cited references, at least by virtue of their dependency on independent claims 1, 7, and 12. For these reasons, Applicants' respectfully request that the rejection of claims 1-17 and 19-20 under 35 U.S.C. § 103 be withdrawn.

II. 35 U.S.C. § 103, Obviousness, Claim 18

The Examiner has rejected claim 18 under 35 U.S.C. § 103 as being obvious in view of *Nakayama et al.* (U.S. Patent No. 6,907,001), *Erimli et al.* (U.S. Patent 6,842,423), and *Wynne et al.* (U.S. Patent 6,959,002). This rejection is respectfully traversed.

Claim 18 is a dependent claim that depends from independent claim 12. *Wynne* fails to cure the deficiencies of *Nakayama* with respect to the features of claim 12 that are contained in claim 18 by dependency. Specifically, *Nakayama* fails to teach or suggest

the claimed feature of "in response to a determination that the particular one of the plurality of output queues contains a number of queue items that meets or exceeds the pre-determined amount, preventing any queue items that have a same corresponding output port as the particular one of the plurality of output queues **and that have a queue item priority greater than or equal to the queue priority of the particular one of the plurality of output queues from exiting the input queue**" (emphasis added). Thus claim 18 is patentable over the cited references for at least the reasons set forth with respect to independent claim 12.

III. Conclusion

It is respectfully urged that the subject application is patentable over the prior art of record and is now in condition for allowance.

The Examiner is invited to call the undersigned at the below-listed telephone number if in the opinion of the Examiner such a telephone conference would expedite or aid the prosecution and examination of this application.

DATE: April 8, 2007

Respectfully submitted,

/Michael R. Nichols/

Michael R. Nichols
Reg. No. 46,959
3001 S. Hardin Blvd., Ste. 110
PMB 155
McKinney, TX 75070
Ph: (972) 369-1300
Fax: (469) 519-0144
ATTORNEY FOR APPLICANTS